

Amendment to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application.

1. (Currently amended) Transmission system comprising a transmitter with an encoder for encoding an audio signal, the encoder comprises frequency determining means for determining a frequency of at least one periodical component of the audio signal, the transmitter further comprises transmitting means for transmitting a signal representing said frequency to a receiver, said receiver comprises receiving means for receiving a signal representing said frequency from the transmitter, and a decoder for deriving a reconstructed audio signal on the basis of said frequency, wherein the encoder further comprises frequency change determining means for determining a rate of frequency change of said at least one periodical component of the audio signal over a predetermined amount of time to be used by said decoder for deriving said reconstructed audio signal, wherein the frequency change determining means further determines an average frequency of the at least one periodical component of the audio signal over the predetermined amount of time to be used by said decoder for deriving said reconstructed audio signal, wherein the transmitting means transmits a two further signals representing, respectively, said frequency change to the receiver and said average frequency of the at least one periodical component, and the receiver receives said further signal, the decoder deriving said reconstructed audio signal also on basis of said frequency change.

Claim 2 (canceled)

3. (Previously presented) Transmission system according to claim 1, wherein the encoder comprises means for determining a fundamental frequency from the audio signal using said frequency change.

4. (Previously presented) Transmission system according to claim 1, wherein the encoder comprises time transforming means for obtaining a time transformed audio signal, wherein the time transforming means are arranged for time compressing the audio signal during a first part of the predetermined amount of time and for time expanding the audio signal during a second part of the predetermined amount of time in such a way that the time transformed audio signal has a smaller frequency change than the audio signal.

5. (Previously presented) Transmission system according to claim 1, wherein the frequency change determining means comprise time transform determining means for deriving a plurality of time transformed audio signals, each corresponding to a different time transform, and wherein the time transform determining means comprise selection means for selecting the time transform corresponding to the time transformed audio signal having a smallest frequency change over said predetermined amount of time.

6.(Previously presented) Transmission system according to claim 5, wherein the time transform determining means are arranged for selecting the time transformed audio signal having the smallest frequency change over said predetermined amount of time by selecting the time transformed audio signal having the highest peak in its autocorrelation function.

7. (Previously presented) Transmission system according to claim 4, wherein the time transform is defined by a quadratic relation between the actual time and the transformed time.

8. (Previously presented) Transmission system according to claim 7, wherein the relation between the actual time t and the transformed time τ is defined by

$$\tau(t) = \frac{a}{T} \cdot t^2 + (1-a) \cdot t \quad ; \quad 0 \leq t \leq T$$
 in which a is a parameter defining the time transform and T is the duration of a signal segment.

9. (Currently amended) Transmitter with an encoder for encoding an audio signal, the encoder comprises frequency determining means for determining a frequency of at least one periodical component of the audio signal, the transmitter further comprises transmitting means for transmitting a signal representing said frequency, wherein the encoder further comprises frequency change determining means for determining a rate of frequency change of said at least one periodical component of the audio signal over a predetermined amount of time to be used by a decoder for

deriving said reconstructed audio signal, , wherein the frequency change determining means further determines an average frequency of the at least one periodical component of the audio signal over the predetermined amount of time to be used by said decoder for deriving said reconstructed audio signal, wherein the transmitting means transmits a two further signals representing, respectively, said frequency change and said average frequency of the at least one periodical component.

Claim 10 (canceled)

11. (Previously presented) Transmitter according to claim 9, wherein the encoder comprises means for determining a fundamental frequency from the audio signal under use of said change of said fundamental frequency over a predetermined amount of time.

12. (Previously presented) Transmitter according to claim 9, wherein the encoder comprises time transforming means for obtaining a time transformed audio signal, wherein the time transforming means are arranged for time compressing the audio signal during a first part of the predetermined amount of time and for time expanding the audio signal during a second part of the predetermined amount of time in such a way that the time transformed audio signal has a smaller frequency change than the audio signal.

13. (Currently amended) Receiver comprising receiving means for receiving an encoded audio signal representing an audio signal by at least a frequency of at least one periodical component of the audio signal, and a decoder for deriving a reconstructed audio signal on the basis of said frequency, wherein the receiver receives a two further signals representing, respectively, a rate of frequency change of said at least one periodical component of said audio signal over a predetermined amount of time, and an average frequency of the at least one periodical component of the audio signal, and the decoder is arranged for deriving said reconstructed audio signal also on the basis of said frequency change and said average frequency.

14. (Previously presented) Receiver according to claim 13, wherein the decoder comprises time transforming means for obtaining the reconstructed audio signal by time transforming a decoded signal wherein the time transforming means are arranged for time expanding the decoded signal during a first part of the predetermined amount of time and for time compressing the decoded signal during a second part of the predetermined amount of time in such a way that the time transformed decoded signal has a larger frequency change than the decoded signal.

15. (Currently amended) Encoder for encoding an audio signal, the encoder comprises means for determining a frequency of at least one periodical component of the audio signal, and for deriving a signal representing said frequency, wherein the encoder further comprises frequency change determining means for determining a first further signal representing a rate of frequency change of

said at least one periodical component over a predetermined amount of time, wherein the frequency change determining means further determines a second further signal representing an average frequency of the at least one periodical component of the audio signal over the predetermined amount of time to be used by said decoder for deriving said reconstructed audio signal, wherein said first and second further signals ~~is~~ are transmitted to a decoder for deriving said audio signal from said first and second further signals.

16. (Previously presented) Encoder according to claim 15, wherein the encoder comprises time transforming means for obtaining a time transformed audio signal, wherein the time transforming means are arranged for time compressing the audio signal during a first part of the predetermined amount of time and for time expanding the audio signal during a second part of the predetermined amount of time in such a way that the time transformed audio signal has a smaller frequency change than the audio signal.

17. (Currently amended) Decoder for deriving a reconstructed audio signal from an encoded audio signal representing said audio signal by at least a frequency of at least one periodical component of the audio signal, said decoder deriving the reconstructed audio signal on the basis of said frequency, wherein the decoder drives said reconstructed audio signal also on the basis of a two further signals representing, respectively, a rate of frequency change of said at least one periodical component over a predetermined amount of time and an average frequency of the at least one

periodical component of the audio signal over the predetermined amount of time, said two further signals being received from a transmitter.

18. (Previously presented) Decoder according to claim 17, wherein the decoder comprises time transforming means for obtaining the reconstructed audio signal by time transforming a decoded signal wherein the time transforming means are arranged for time expanding the decoded signal during a first part of the predetermined amount of time and for time compressing the decoded signal during a second part of the predetermined amount of time in such a way that the reconstructed audio signal has a larger frequency change than the decoded signal.

19. (Currently amended) Method for encoding an audio signal comprising determining a frequency of at least one periodical component, deriving a signal representing said frequency of at least one periodical component of the audio signal, and determining two a further signals representing, a rate of frequency change of said at least one periodical component of the audio signal over a predetermined amount of time and an average frequency of the at least one periodical component of the audio signal over the predetermined amount of time, said to be used by a decoder for deriving said audio signal, wherein said signal and said two further signals are transmitted to a decoder for deriving said audio signal from said signal and said two further signals.

20. (Previously presented) Method according to claim 19, further comprising deriving a time transformed audio signal, and time compressing the audio signal during a first part of the predetermined amount of time and for time expanding the audio signal during a second part of the predetermined amount of time in such a way that the time transformed audio signal has a smaller frequency change than the audio signal.

21. (Currently amended) Method for deriving a reconstructed audio signal from an encoded audio signal representing an audio signal by at least a frequency of at least one periodical component of the audio signal, and a decoder for deriving said reconstructed audio signal on basis of a frequency signal representing said frequency, wherein the method comprises deriving said reconstructed audio signal also on basis of a two further signals representing, respectively, a rate of frequency change of said at least one periodical component of the audio signal over a predetermined amount of time and an average frequency of the at least one periodical component of the audio signal over the predetermined amount of time, wherein said frequency signal and said two further signals are transmitted to said decoder for deriving said audio signal from said frequency signal and said two further signals.

22. (Previously presented) Method according to claim 21, further comprising deriving the reconstructed audio signal by a time transforming of a decoded signal wherein the time transforming comprises time expanding the decoded signal during a first part of the predetermined amount of time

and for time compressing the decoded signal during a second part of the predetermined amount of time in such a way that the time transformed decoded signal has a larger frequency change than the decoded signal.

23. (Previously presented) Storage medium carrying a computer program for performing a method according to claim 19.

24. (Previously presented) Signal carrying a computer program for performing a method according to claim 19.

25. (Currently Amended) Encoded audio signal representing said audio signal by at least a frequency of at least one periodical component of the audio signal, wherein the encoded audio signal comprises a first further signal component representing a rate of frequency change of said at least one periodical component over a predetermined amount of time and a second further signal representing an average frequency of the at least one periodical component of the audio signal over the predetermined amount of time, wherein said first and second further signals are ~~is~~ transmitted to a decoder for deriving said audio signal from said two further signals.

26. (Original) Storage medium carrying an encoded audio signal according to claim 23.